

REMARKS

Claims 1-17 are pending. Claims 1-9 and 13-17 were rejected and claims 10-12 were objected to. Claim 10 has been cancelled. The Applicants respectfully traverse the Examiner's rejections and objections.

Claims 1-9 were rejected under 35 USC 112 second paragraph as being indefinite. Applicant has amended claims 1-3 to change the second direction and the another direction to a perpendicular direction and should now be allowable. Claims 4-8 being ultimately dependent upon claim 3 should be allowable for at least the same reasons claim 3 is allowable. The rejection of claim 9 appears to be an error as there is no mention of the term direction in claim 9.

Claims 1-3 were rejected under 35 USC 102 as being anticipated by what the Examiner has characterized as Admitted prior art. The Examiner uses FIG. 3 of the specification citing first (320) and second (322) transmit connections, first (324) and second (324) receive connections, and a vertical ground plane (dotted line) between first (320) and second (322) transmit connections and , first (324) and second (324) receive connections. In addition as FIG. 3 and paragraph 11 of the specification indicate, there is also a ground shield (240) perpendicular to the vertical ground shield and adjacent to the second (322) transmit connection.

Claim 1, as amended, includes a feature of a ground shield positioned in the first direction between the first and second transmit connection positions and the receive connection position, wherein the first or second transmit connection positions do not have an adjacent ground shield in a perpendicular direction. This feature is supported in the specification by FIG. 4 with first (320) and second (340) transmit connections, first (326) and second (346) receive connections, and a vertical ground plane (240). As indicated in FIG. 4 the first (320) or second (340) transmit connection

positions do not have an adjacent ground shield in a perpendicular direction, e.g. vertical dotted lines.

Hence, what the Examiner has characterized as admitted prior art (FIG. 3), does not disclose or suggest this feature and claim 1 and similarly claims 2-3 should be allowable for at least this reason.

Claims 4-8 being ultimately dependent upon claim 3 should be allowable for at least the same reasons claim 3 is allowable. Claims 6-8 were amended due to proof reading errors.

Claim 9 has been amended to incorporate the limitations of claim 10 and should be allowable.

Claims 11-12 being ultimately dependent upon claim 9 should be allowable for at least the same reason claim 9 is allowable.

Claim 17 was rejected under 35 USC 102 as being anticipated by what the Examiner has characterized as Admitted prior art (FIG. 3 of the specification). Claim 1, as amended, includes a feature of means for configuring a first ground shield between means for connecting each transmit part of the plurality of transmit/receive pairs to the backplane and means for connecting each receive part of the plurality of transmit/receive pairs to the backplane, wherein there is no second ground shield between each transmit part of the plurality of transmit/receive pairs. FIG. 3 of the specification neither discloses nor suggests this feature and Claim 17 should be allowable.

Claims 13-16 were rejected under 35 USC 103(a). The Examiner combined FIG. 3 of the specification with FIG. 2 of Rothermel et. al. (U.S. Patent No. 6,384,341). The Examiner uses columns 310 and 312 of FIG. 3 of the specification to describe the transmit/receive pairs and ground structure 240 as the ground structure between the associated transmit connection structures and the associated receive connection structures. However, The Examiner admits that there is no interposing ground structure between the associated receive connection structures, e.g., 326 and 344. The Examiner then cites Rothermel to remove

the part of ground structure 240 between RXN 326 and RXP 344 with the motivation of reducing cross-talk.

First the Applicant disagrees with the Examiner that one of ordinary skill in the art would remove shielding to reduce cross-talk. Removing the section of ground structure 240 between RXN 326 and RXP 344 would not reduce cross-talk, in fact, it would increase it, as the differential pairs are RXP 324/RXN 326 and RXP 344/RXN 346 (not RXN 326/RXP 344). Thus there is no motivation to combine. Second, Rothermel at FIG. 2 and col. 7, lines 21-37, shows rows of signal pins 104 in differential pairs 106, separated by rows of ground pins 102. And where each signal pin 104 is positioned between two ground pins 102, but ground pins 102 do not separate signal pins in a row (having the differential pairs 106). Applying Rothermel to FIG. 3 of the specification with the rows being 310 and 312 would also remove the ground structure 240 completely. This teaches away from the combination.

Hence what the Examiner has characterized as Admitted prior art (FIG. 3 of the specification) combined with Rothermel should not be used to reject claim 13 under 35 USC 103 and claim 13 should be allowable.

Claims 14-16 being ultimately dependent upon claim 13 should be allowable for at least the same reason claim 13 is allowable.

CONCLUSION

All claims should be now be in condition for allowance and a Notice of Allowance is respectfully requested.

If there are any questions, the applicants' attorney can be reached at Tel: 408-879-6149 (Pacific Standard Time).

Respectfully submitted,


Kim Kanzaki, Ph.D.
Attorney for Applicant
Reg. No. 37,652

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on June 24, 2004.

Pat Slaback
Name


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